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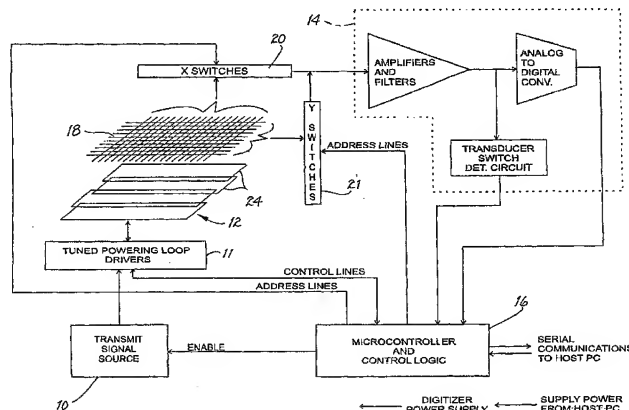
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(54) Title: SURFACE AND CORDLESS TRANSDUCER SYSTEM



(57) **Abstract:** A smart surface is disclosed that can stand alone or be contained within a portable computer or other system, for powering and communicating with single or multiple cord-free transducers. Operating or charging power is transmitted by the surface using a carrier signal that is on/off keyed or amplitude modulated with synchronization, clock, enable, address, modes, commands and other pulse width, encoded or digital data. The signal is transmitted to single or multiple cordless smart transducers located on or above the surface, such as pens with multiple pressure sensing and switch capability, pointers, stylus, cursors, pucks, mouse, pawns, implements and similar items. Overlapping resonant inductive circuits are used in the surface to transmit operating power and communicate data to the transducer(s). The transducer(s) are smart or intelligent in that they contain digital circuitry, such as a processor or controller, that can be used to decode, interpret and operate on the power and information received from the surface, including encrypted data for security if desired, and when the surface is not transmitting, they generate and transmit response signals back to the surface.

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